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February 7, 2006

Project No. 08CH.51312.05

Ms. Marisue Crystal
County of San Diego
Land and Water Quality Division
P.O. Box 129261
San Diego, California 92112-9261

Reference: Chevron Service Station No. 9-1312
2500 El Camino Real
Carlsbad, CA 92008

Drilling Permit #LMON103616
EST # H05724
APN #167-030-32

Subject: Monitoring Well Abandonment Report

Dear Ms. Crystal:

On behalf of Chevron Environmental Management Company (CEMC), SECOR International Incorporated (SECOR) is submitting this report summarizing the results of monitoring well (MW) abandonment activities performed at the referenced property (the Site). The Site is Chevron Service Station No. 9-1312, located at 2500 El Camino Real, in Carlsbad, CA (Figure 1).

Well abandonment activities were performed under permit #LMON103616, issued by the County of San Diego Department of Environmental Health (DEH), Land and Water Quality Division (LWQD), Site Assessment and Mitigation Division (SAM) Program. Well abandonment activities were performed in accordance with the applicable requirements of San Diego County well standards as outlined in Appendix B of the *SAM Manual 2004* and in accordance with the California Well Standards outlined in the Department of Water Resources Bulletin 74-81 and Bulletin 74-90. A site plan showing the abandoned MWs is presented as Figure 2.

WELL ABANDONMENT ACTIVITIES

On December 12th through December 14th, 2005, under the supervision of a California Professional Geologist, a SECOR scientist observed the abandonment of eight (8) on-site groundwater MWs and five (5) off-site groundwater MWs (Figure 2).

Well abandonments were performed by Test America Drilling, Inc. (Test America) using a CME-75 drill rig and a Limited Access Rig (LAR) equipped with 8-inch diameter, continuous flight, hollow-stem augers (HSAs). Each well casing was completely withdrawn from its borehole prior to over-drilling. On-site MW's B-1 thru B-4, were over-drilled to total depths of approximately 20-feet below ground surface (bgs). Well B-5 was over-drilled to a total depth of approximately 21-feet bgs. B-7 was over-drilled to a total depth of 21.5-ft bgs while MW-7 was over-drilled to 23-ft bgs. Off-site MW's MW-8 and MW-9 were over-drilled to a total depth of approximately 24.5-ft bgs. MW-10, MW-11 and MW-14 were over-drilled to total depths of approximately 25-ft bgs, 25.5-ft bgs and 35.5-ft bgs respectively.

B-6 (on-site) was over-drilled to a total depth of approximately 15-ft bgs, as the bottom of this well was measured to be 10-ft bgs. Upon removing the auger, a Driller from Test America discovered that the well had previously been installed by drilling through an existing storm drain. SECOR notified the City of Carlsbad and it was recommended to temporarily place 4ft by 8ft traffic plate over the borehole, until repair work could be scheduled. On January 3rd and 4th, 2006 a SECOR scientist observed the repair of the storm drain in which MW B-6 had penetrated. The abandonment of MW B-6 was then finished by backfilling the existing borehole with bentonite grout to 3-ft bgs and completed with concrete from 3-ft bgs to ground surface.

MW-6 was not abandoned since this MW was installed at an angle extending underneath the existing station building. At the time of install, an angled installation of MW-6 was required due to it's proximity to the current station's building. The abandonment of MW-6 will require obtaining subsurface utility clearance, which includes everything within the proximity of this angled MW beneath the station building. A second round of well abandonment is scheduled for the site in 2006, once a California Environmental Quality Act permit is obtained from the City of Carlsbad. It is recommended to remove MW-6 at that time once the utility clearance is complete.

The over-drilled boreholes for on-site MW's B-1 thru B-7 and MW-7 were backfilled with a bentonite-grout slurry mixture from the bottom of each borehole to approximately 3-ft bgs. These boreholes were completed with concrete from approximately 3-ft bgs to ground surface. Other materials used during MW installation consisted of approximately fifteen and a half (15.5) 50-pound bags of bentonite-grout (50.75 cubic feet), fourteen (14) 50-pound bags of bentonite chips (7.7 cubic feet) and a combination of forty-three (43) 60 & 70-pound bags of Ready Mix/Quick Set concrete mix (30.1 cubic feet) were installed (to serve as an upper seal) during the well abandonment activities.

The over-drilled boreholes for off-site MW's MW-8 thru MW-11 and MW-14 were backfilled with a bentonite-grout slurry mixture from the bottom of the borehole to approximately 3-ft bgs and with concrete from approximately 3-ft bgs to ground surface. Approximately thirteen and a half (13.5) 50-pound bags of bentonite-grout (47.25 cubic feet), eight (8) 50-pound bags of bentonite chips (4.4 cubic feet), and a combination of twenty-two (22) 60 & 70-pound bags of Ready Mix/Quick Set concrete (15.4 cubic feet) were installed (to serve as an upper seal) during the well abandonment activities. Additionally, the volume of bentonite-grout, bentonite chips, and concrete mix used in each abandoned well is provided in Table 1 (Construction Materials for Well Abandonment).

Drill cuttings generated during the well abandonment activities, consisting of filter pack sand and bentonite seal materials were placed into 55-gallon drums that were properly labeled and temporarily stored on-site pending transport and disposal by Phillips Services Corporation (PSC), an approved contractor. The well box, casing materials, and concrete were also disposed of by (PSC).

CONCLUDING REMARKS

The site location map, site plan, well construction materials table, and well permit cover sheet are provided as attachments to this report. If you have any questions regarding the information provided in this report, please contact the undersigned at (619) 296-6195.

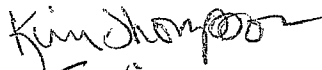
Respectfully submitted,

SECOR International Incorporated

Prepared By:

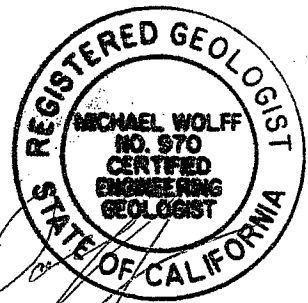
Reviewed By:

Approved By:


For:
Jeremiah S. Santini
Staff Geologist


Kim Thompson
Project Manager

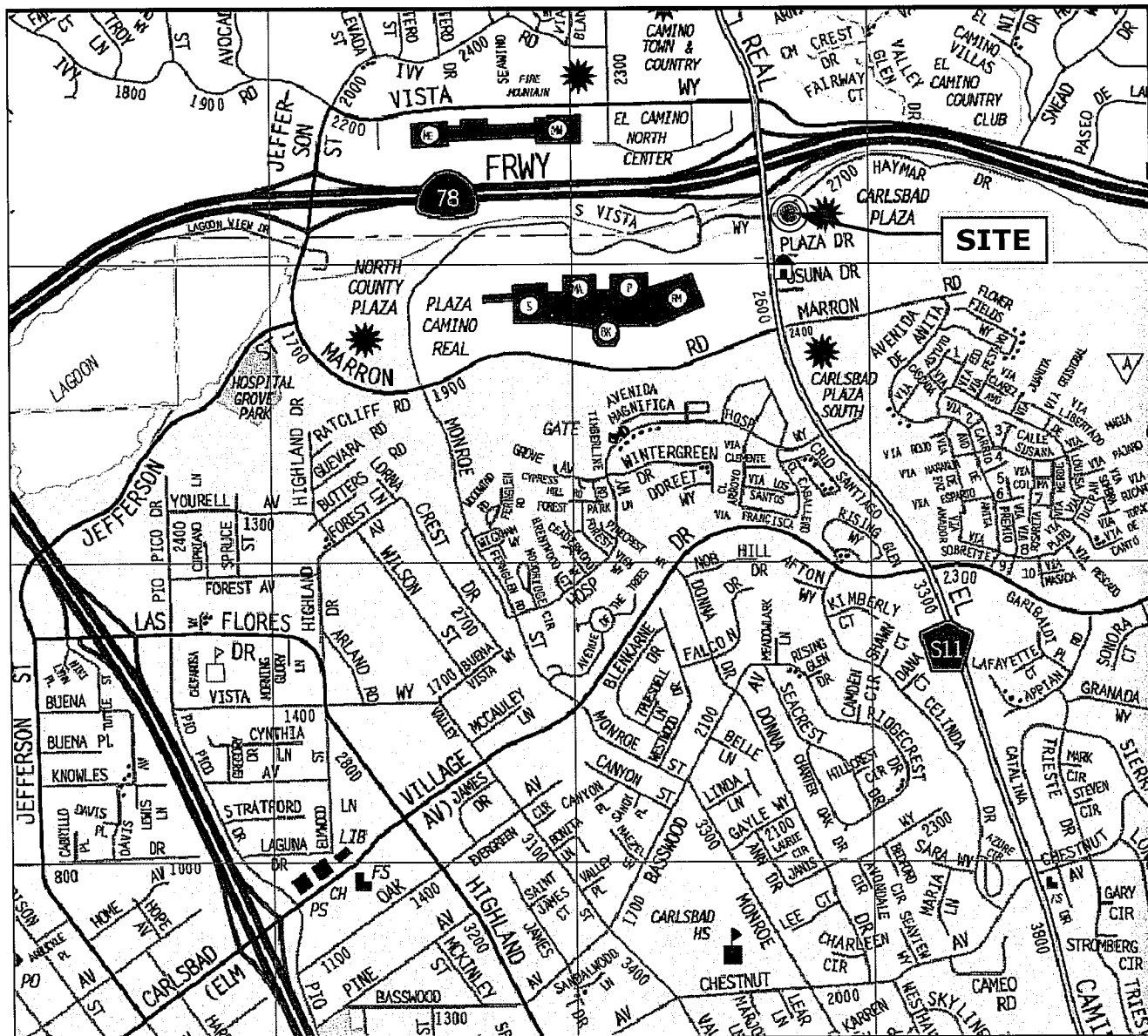

Michael Wolff, CEG #970
Principal Engineering Geologist



Enclosure: Figure 1 - Site Location Map
Figure 2 - Site Plan
Table 1 - Construction Materials for Monitoring Well Abandonment
Attachment 1 - Well Abandonment Permit Cover Sheet

cc: Mr. Dana Thurman, Chevron Environmental Management Company
Ms. Madelaine Montilla, SECOR International
Mr. Kent Huth, County of San Diego SAM Program

FIGURES



REFERENCE: THOMAS GUIDE CD-ROM, PAGE & GRID 1106 G3.



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APPROXIMATE SCALE IN FEET



SECOR

2655 CAMINO DEL RIO NORTH, SUITE 302
SAN DIEGO, CALIFORNIA
PHONE: (619) 296-6195/296-6199 (FAX)

PREPARED FOR:

CHEVRON STATION No. 9-1312
2500 El Camino Real
Carlsbad, California

JOB NUMBER:

08CH.52194.05

DRAWN BY:

PD

CHECKED BY:

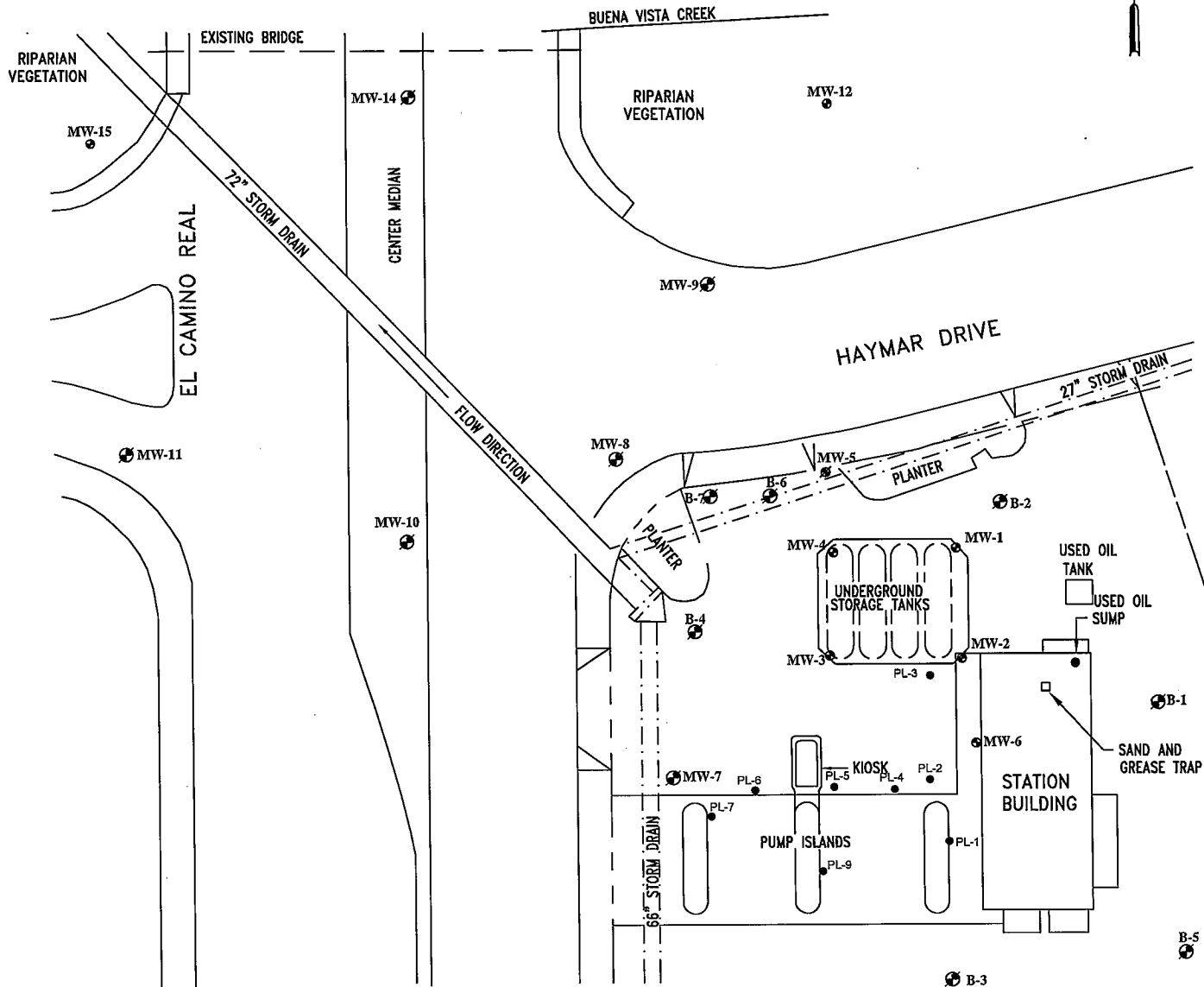
APPROVED BY:

FIGURE:



1

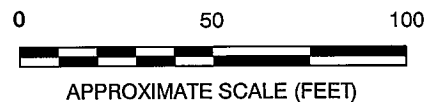
DATE:

01/10/06




LEGEND:

- MW-2  GROUNDWATER MONITORING WELL
- MW-14  ABANDONED GROUNDWATER MONITORING WELL



MAP REFERENCE:
SITE PLAN ADAPTED FROM BBC ENVIRONMENTAL, INC. FIGURE.

 <p>SECOR</p> <p>2655 CAMINO DEL RIO NORTH, SUITE 302 SAN DIEGO, CALIFORNIA PHONE: (619) 296-6195/296-6199 (FAX)</p>	<p>PREPARED FOR:</p> <p>CHEVRON STATION NO. 9-1312 2500 El Camino Real Carlsbad, California</p> <p>JOB NUMBER: 08CH.51312.05</p> <p>DRAWN BY: PD</p>	<p>SITE PLAN</p> <p>CHECKED BY:</p> <p>APPROVED BY:</p>	<p>FIGURE:</p> <p>2</p> <p>DATE: 01/10/06</p>
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TABLE

Table 1
Construction Materials for Monitoring Well Abandonment
Chevron Service Station 9-1312

Boring/Well Number	Overdrill Depth (ft bgs)	Bentonite-Grout (bags)*	Bentonite Chips (bags)*	Concrete Mix (bags)**	Concrete Mix (bags)***	Bentonite-Grout Fill (cubic feet)	Bentonite Chip Fill (cubic feet)	Concrete Mix Fill (cubic feet)
B-1	20	1.5	1	3	1	5.25	0.55	2.8
B-2	20	1	1	2	2	3.5	0.55	2.8
B-3	20	1	1	4	3	3.5	0.55	4.9
B-4	20	2	1	4	3	3.5	0.55	4.9
B-5	21	2	3	5	2	7	1.65	4.9
B-6	15	3.5	3	3	1	12.25	1.65	2.8
B-7	21.5	2.5	3	3	2	8.75	1.65	3.5
MW-7	23	2	1	3	2	7	0.55	3.5
MW-8	24.5	1.5	1	2	1	5.25	0.55	2.1
MW-9	24.5	2.5	1	3	2	8.75	0.55	3.5
MW-10	25	3	1	2	1	10.5	0.55	2.1
MW-11	25.5	3.5	1	3	1	12.25	0.55	2.8
MW-14	35.5	3	4	4	3	10.5	2.2	4.9

Notes:

ft bgs Feet below ground surface
 * 50 pound bags
 ** 60 pound bags
 *** 70 pound bags

ATTACHMENT 1

Well Abandonment Permit Cover Sheet



PERMIT #LMON103616
A.P.N. #167-302-24, 156-
302-24
EST #H05724-001

**COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION**

MONITORING WELL DESTRUCTION PERMIT

SITE NAME: CHEVRON STATION #9-1312 & OFF-SITE LOCATIONS

SITE ADDRESS: 2500 EL CAMINO REAL & IN STREET @ INTERSECTION OF
HAYMAR DR. AND EL CAMINO REAL, CARLSBAD, CA 92008

PERMIT TO: **DESTROY 14 GROUNDWATER MONITORING WELLS**

PERMIT APPROVAL DATE: DECEMBER 7, 2005

PERMIT EXPIRES ON: APRIL 6, 2006

RESPONSIBLE PARTY: CHEVRON ENVIRONMENTAL MGMT. CO.

PERMIT CONDITIONS:

1. An application must be submitted to DEH-MWP to destroy off-site monitoring wells MW-12 and MW-15 within 30 days of receiving approval from the City of Carlsbad to destroy the wells.
2. All material within the original borehole, which includes the casing, filterpack and annular seal must be removed. The borehole must be completely filled with an approved sealing material as specified in Department of Water Resources Bulletin 74-90.
3. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, E- 4. (http://www.sdcounty.ca.gov/deh/lwg/sam/manual_guidelines.html). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.
4. Within 60 days of completing work, submit a well construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.
5. This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at 338-2339.

NOTE: This permit does not constitute approval of a work plan as defined in Section 2722 of Article 11 of C.C.R., Title 23. Work plans are required for all unauthorized release investigations in San Diego County.

APPROVED BY: _____

MARISUE CRYSTAL

DATE: 12/07/2005

NOTIFIED: *V.M. msg. 12/7/05*
ma